



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/318.159	05/25/99	RHODES	H M4065.0335/P

MM92/0328
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EXAMINER
MUNSON, G

ART UNIT	PAPER NUMBER
2811	

DATE MAILED: 03/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

318,159

Applicant(s)

H. RHODES

Examiner

G. MUNSON

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 19 JANUARY 2001.
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 45, 46, 49-52, 54-57, 59-76 is/are pending in the application.
Of the above claim(s) 61-67 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 45, 46, 49-52, 54-57, 60, 68-76 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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Prosecution is continued under 37 CFR 1.53(d).

Claims 61-67 are withdrawn from consideration as being for non-elected species, the election having been made *without* traverse in the response, paper No. 5, filed 8 November 1999.

Applicants are requested to cancel the non-elected claims as part of a complete response to this office action. Note that cancellation of the non-elected claims would not preclude the later filing of a divisional application on the non-elected invention (35 U.S.C. 120, 121).

Claims 72 and 76 are rejected under 35 U.S.C. 112, first paragraph. The specification (Figure 8, pages 9-10) describes the "first" and "second" dielectric materials 24 and 34 as being the same, specifically, silicon dioxide. The specification does not specify another dielectric. These claims would be new matter.

The process terminology (claims 68, 73) is considered only in terms of a necessary *resultant structure* from the process. The process itself is not at issue. The device claims are *not* limited to the recited process. See MPEP 2113; *In re Brown*, 173 USPQ 685 (CCPA 1972); *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980); *In re Marosi*, 218 USPQ 289, 292-293 (CCPA 1983); *In re Thorpe*, 227 USPQ 964 (CAFC 1985).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45, 46, 49-52, 54-57, 59, 60, 68-70, 72-74 and 76 are rejected under 35 U.S.C. 103 as unpatentable over Schuegraf et al and Jeng et al '853 considered together. Impurity dopants in substrate are conventional, as applicant would agree and as shown by Jeng et al (column 3, line 61, P- substrate) which would have been obvious to use for substrate 10 of Schuegraf et al (Figure 3D). The claims remain broad in scope. The "first" dielectric material reads on dielectric film 24; the "second" dielectric material reads on dielectric material 26. The "ions" read on subportions of a doped substrate 10 under trench dielectric 24. The claimed "ions" do not distinguish over other "ions" in a doped substrate 10.

Claims 45, 46, 49-52, 54-57, 59, 60, 68-71 and 73-75 are rejected under 35 U.S.C. 102 as unpatentable as shown by Jeng '164 or Narita. See Figure 12 of Jeng; Figure 1 of Narita. For Jeng, the "first" and "second" dielectric materials read on subportions of dielectric layer 7; the "ions" read on subportions of P type substrate 1 under dielectric layer 7. For Narita, the "first" and "second" dielectric materials read on subportions of field oxide 14. The claims remain broad in scope.

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Claims 46, 49-52, 54, 55, 57, 59, 60, 68-71 and 73-75 are rejected under 35 U.S.C. 102 as unpatentable as shown by Kohara et al. See Figure 2C. The “first” and “second” dielectric materials read on subportions of oxide layer 2; the “ion implanted” region reads on region 3 plus subportions of region 1 adjacent region 3 (claims 51, 52, 59, 60).

Claims 45, 49-52 and 68-71 are rejected under 35 U.S.C. 102 as unpatentable as shown by Kooi et al. See Figures 8, 10; column 7, line 1, to column 8, line 3. The “first” and “second” dielectric materials read on subportions of oxide 5 or oxide 29; the “ion implanted” region reads on zone 6 or zone 28.

Claim 45, 49-52 and 68-71 are rejected under 35 U.S.C. 102 as unpatentable as shown by Doo. See Figures 5, 6. The “first” and “second” dielectric materials read on subportions of oxide 6; the “ion implanted” region comprises region 9.

Claims 49-52 and 68-71 are rejected under 35 U.S.C. 102 as unpatentable as shown by Mastroianni et al. See Figure 3J. The “first” and “second” dielectric materials read on subportions of isolation region 125; the “ion implanted” region reads on a subportion of channel stop region 102 (claim 51, 52).

Claims 45, 49-52 and 68-71 are rejected under 35 U.S.C. 102 as unpatentable as shown by Custode et al. See Figures 1, 13. The “first” and “second” dielectric materials read on subportions of field oxide 34; the “ion implanted” region comprises region 13, 49.

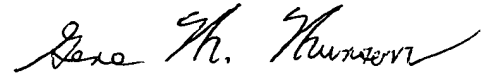
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Claims 46, 49-52, 54, 55, 57, 59, 60, 68-71 and 73-75 are rejected under 35 U.S.C. 102 as unpatentable shown by Joo et al. See Figure 15. The "first" and "second" dielectric materials read on subportions of field oxide layer 65; the "ion implanted" region comprises layer 68.

The references are of record.

No claim is allowed.

Any inquiry concerning this communication should be directed to G. Munson at telephone number (703) 308-4925 or 308-0956.



**GENE M. MUNSON
EXAMINER
GROUP ART UNIT 2831**